Ground Operations-Monitoring Desert Tortoise (FINAL)

FOR OFFICE USE ONLY: Version # _____ APP # 700607

1. Project Description

A. Statement of GO Activity

The Bureau of Land Management (BLM) has sponsored long-term monitoring of Desert Tortoise populations at six long-term monitoring plots, each three square miles in extent, in or near to areas with high OHV use since 1978. Information about Desert Tortoises from these plots concerning their health, movements, habitat use, and causes of death has contributed greatly to our understanding of the status of this federally threatened species in the Mojave Desert. Managers and biologists have used the information to reduce impacts from OHV recreation and travel in efforts to speed recovery of tortoise populations and to restore their habitats. The U.S. Geological Survey (USGS), Biological Resources Division, under the direction of Dr. Kristin Berry, monitors these long-term study plots.

This grant would support monitoring conducted and partially funded by the USGS on Desert Tortoise populations within and adjacent to popular, high-use motorized recreation areas in the western Mojave Desert. The grant would provide support for determining tortoise densities and other population characteristics (sex ratios, mortality rates, causes of death) in two types of management areas: Desert Tortoise Natural Area interpretive center, a control area within the fenced Natural Area and associated interpretive center facilities, and a second area, which is outside the fence, and where recreation vehicle-oriented recreation occurs. Vehicle-oriented recreation at the Desert Tortoise Natural Area interpretive center has gradually been increasing during the last 20 years; by 2009, the majority of the users of the interpretive center facilities and trails have been OHV users. USGS scientists have monitored tortoise populations on a long-term 3 square mile plot at irregular intervals since 1979. The plot includes both the fenced Natural Area and adjacent OHV use area. The last survey occurred in 2002. The monitoring methods have been tested and are successful for monitoring long-term trends in tortoise populations and habitat. The health monitoring and census methods draw on specialized techniques developed by the USGS. Partnering with the USGS is much more efficient and less expensive for BLM than using private-sector contractors or BLM staff biologists. In addition, field scientists keep records of other listed species (Mohave Ground Squirrel) and BLM sensitive species (e.g., Burrowing Owl) seen in the course of Desert Tortoise monitoring.

The monitoring protocols provide high quality, comprehensive data on population attributes of tortoises. Also, the protocols give detailed information for wildlife managers about the health of individual live tortoises and forensic analyses of dead tortoises encountered on the plots. In this way, scientists can track the causes of death affecting Desert Tortoises and find ways to prevent further unnecessary mortality. The OHMVR Division has awarded grants to BLM for USGS scientists to monitor the Jawbone Canyon OHV Open Area (Ridgecrest Field Office, 2004), the El Mirage Recreation Area (Barstow Field Office, 2005), the El Paso Mountains (Ridgecrest Field Office, 2006), and Chemehuevi Wash (Needles Field Office, 2008).

At one time, Desert Tortoise populations at the interpretive center monitoring plot and throughout the general region supported the highest densities reported for the Mojave Desert. Beginning in the late 1980s, however, tortoises began to die at unprecedented rates from a combination of imported diseases, habitat fragmention in OHV riding landscapes, and predation by ravens, vandalism, uncontrolled dogs, and coyotes, resulting in lowered population densities of tortoises. Current monitoring of populations at the interpretive center will provide the basis for recovery efforts, such as head starting of tortoises, and will place the population data in context with tortoise populations elsewhere in the California Deserts. The information will help to improve management by identifying problem areas, such as signage, education of users, sites requiring restoration, and sites for potential head starting efforts. The results would also determine whether significant differences exist in tortoise populations inside the Desert Tortoise Natural Area and in adjoining areas where OHV activities and camping occur on a mix of public and private lands.

B. Relation of Proposed Project to OHV Recreation

This project is designed to provide managers with information essential (1) to multiple use management of public lands

administered by the BLM, thus allowing continued OHV use; (2) to determining the status of high-profile Desert Tortoise populations in an area where OHV use is increasing; (3) to identifying factors that affect tortoise habitat in the vicinity of the Desert Tortoise Natural Area interpretive center and adjacent lands used by OHV riders; and (4) to identify potential restoration areas. The project will occur on public lands where the majority of the visitation is from off-highway vehicle users. Part of the project will involve lands within the Desert Tortoise Natural Area, because the data can serve as an informative baseline and comparison. The Natural Area hosts an interpretive nature center that draws many OHV riders each year. Currently, OHV riders represent more than half of all visitors to the nature center, and numbers of OHV visitors increase every year as their interest in the natural history of the Fremont Valley and the Natural Area and in the fate of the Desert Tortoise grows.

Current data on the population size and health status of Desert Tortoises in the region are essential for providing the best locality-specific information on impacts to Desert Tortoises in comparable habitats where OHV riding occurs and where it is absent. With this information, the agency can know whether its current multiple-use and protection management is positively affecting Desert Tortoise populations. Environmental organizations have been concerned about ongoing unauthorized vehicle entry and riding in the Natural Area, whereas OHV recreation advocates have been concerned about the trails in the Rand Mountains–Fremont Management Area and adjacent lands closed to halt Desert Tortoise habitat fragmentation from route proliferation.

This monitoring project will assist in detecting current impacts of recreation on the Desert Tortoise in this historically core habitat, and provide a baseline for recovery efforts of habitat through restoration and education, as well as to identify appropriate sites to head-start baby tortoises. BLM wildlife biologists will have more information on habitat use and occupation by desert tortoises and can subsequently adjust wildlife management based on high-quality data for the local areas with designated trails for OHV riding and areas closed to riding adjacent to the Desert Tortoise Natural Area. Improved route signing, fencing, route restoration and improvement, and outreach to the OHV riding public can make a difference in people's awareness and recreation experience in the area.

C. Describe the size of the specific Project Area(s) in acres and/or miles

The local project area is approximately 3 square miles with an area of influence of over 150 square miles in the western Mojave Desert of eastern Kern County. The project area and area of influence are in the Fremont Valley and on the slopes of the Rand Mountains. The large plot is located in BLM's Desert Tortoise Natural Area and Areas of Critical Environmental Concern and on adjacent OHV riding areas. The project area is seven miles northeast of California City and 32 miles southwest of Ridgecrest.

D. Location and description of OHV opportunities

The project area is adjacent to and within the Rand Mountain-Fremont Valley Management Area, an OHV riding area on designated trails within Desert Tortoise critical habitat (designated as the Fremont-Kramer Desert Wildlife Management Area). Three BLM OHV Open Riding Areas are managed by the Ridgecrest Field Office with support from the Friends of Jawbone: Jawbone Canyon Open Area (9 miles air distant), Dove Springs Open Area (14 miles), and Spangler Off-Highway Vehicle Area (22 miles). Other destinations nearby for riding on designated OHV routes are the Last Chance Canyon ACEC, the eastern El Paso Mountains, the Red Mountain OHV route network, and the mountain hinterlands of the Jawbone-Butterbredt ACEC at the eastern edge of the southern Sierra Nevada. Randsburg and Johannesburg are small communities at the east end of the Rand Mountains where OHV riders gather to meet friends and stage rides into the history-rich Randsburg Mining District.

2. Rerouting Requirements

Rerouting

(a) Does your project involve rerouting of any roads and trails? ☐ Yes ☑ No

If response to question (a) is 'Yes', a Project timeline, conceptual drawings and site plans are required (See 'Attachments' tab at the top of the screen)

If response to question (a) is 'No', skip details related to rerouting

Additional Documentation

FOR OFFICE USE ONLY:	Version # _____	APP # 700607

1. Project Timeline (Required if project includes necessary rerouting)

2. Conceptual Drawings and Site Plans (Required if project includes necessary rerouting)

3 Project-Specific Maps

Attachments: Map of the Desert Tortoise Survey Plot, Eastern Kern County

4. Optional Project-Specific Application Documents

Attachments: Pictures of Monitoring Desert Tortoises

Project Cost Estimate

	FOR OFFICE USE ONLY: Version # _____ APP # _____		
APPLICANT NAME :	BLM - California State Office		
PROJECT TITLE :	Ground Operations-Monitoring Desert Tortoise (FINAL)	**PROJECT NUMBER (Division use only) :**	G09-01-07-G02
PROJECT TYPE :	☐ Acquisition ☐ Development ☐ Education & Safety ☑ Ground Operations ☐ Law Enforcement ☐ Planning ☐ Restoration		
PROJECT DESCRIPTION :	The Bureau of Land Management (BLM) has sponsored long-term monitoring of Desert Tortoise populations at six long-term monitoring plots, each three square miles in extent, in or near to areas with high OHV use since 1978. Information about Desert Tortoises from these plots concerning their health, movements, habitat use, and causes of death has contributed greatly to our understanding of the status of this federally threatened species in the Mojave Desert. Managers and biologists have used the information to reduce impacts from OHV recreation and travel in efforts to speed recovery of tortoise populations and to restore their habitats. The U.S. Geological Survey (USGS), Biological Resources Division, under the direction of Dr. Kristin Berry, monitors these long-term study plots. This grant would support monitoring conducted and partially funded by the USGS on Desert Tortoise populations within and adjacent to popular, high-use motorized recreation areas in the western Mojave Desert. The grant would provide support for determining tortoise densities and other population characteristics (sex ratios, mortality rates, causes of death) in two types of management areas: Desert Tortoise Natural Area interpretive center, a control area within the fenced Natural Area and associated interpretive center facilities, and a second area, which is outside the fence, and where recreation vehicle-oriented recreation occurs. Vehicle-oriented recreation at the Desert Tortoise Natural Area interpretive center has gradually been increasing during the last 20 years; by 2009, the majority of the users of the interpretive center facilities and trails have been OHV users. USGS scientists have monitored tortoise populations on a long-term 3 square mile plot at irregular intervals since 1979. The plot includes both the fenced Natural Area and adjacent OHV use area. The last survey occurred in 2002. The monitoring methods have been tested and are successful for monitoring long-term trends in tortoise populations and habitat. The health monitoring and census methods draw on specialized techniques developed by the USGS. Partnering with the USGS is much more efficient and less expensive for BLM than using private-sector contractors or BLM staff biologists. In addition, field scientists keep records of other listed species (Mohave Ground Squirrel) and BLM sensitive species (e.g., Burrowing Owl) seen in the course of Desert Tortoise monitoring. The monitoring protocols provide high quality, comprehensive data on population attributes of tortoises. Also, the protocols give detailed information for wildlife managers about the health of individual live tortoises and forensic analyses of dead tortoises encountered on the plots. In this way, scientists can track the causes of death affecting Desert Tortoises and find ways to prevent further unnecessary mortality. The OHMVR Division has awarded grants to BLM for USGS scientists to monitor the Jawbone Canyon OHV Open Area (Ridgecrest Field Office, 2004), the El Mirage Recreation Area (Barstow Field Office, 2005), the El Paso Mountains (Ridgecrest Field Office, 2006), and Chemehuevi Wash (Needles Field Office, 2008). At one time, Desert Tortoise populations at the interpretive center monitoring plot and throughout the general region supported the highest densities reported for the Mojave Desert. Beginning in the late 1980s, however, tortoises began to die at unprecedented rates from a combination of imported diseases, habitat fragmention in OHV riding landscapes, and predation by ravens, vandalism, uncontrolled dogs, and coyotes, resulting in lowered population densities of tortoises. Current monitoring of populations at the interpretive center will provide the basis for recovery efforts, such as head starting of tortoises, and will place the population data in context with tortoise populations elsewhere in the California Deserts. The information will help to improve management by identifying problem areas, such as signage, education of users, sites requiring restoration, and sites for potential head starting efforts. The results would also determine whether significant differences exist in tortoise populations inside the Desert Tortoise Natural Area and in		

	adjoining areas where OHV activities and camping occur on a mix of public and private lands.

	Line Item	Qty	Rate	UOM	Grant Request	Match	Total
DIRECT EXPENSES							
Program Expenses							
1	**Staff**						
2	**Contracts**						
	Other-Desert Tortoise Monitoring Team Notes : This cost covers the field monitoring team supervised by the USGS Biological Technician to conduct the data collection for intensive monitoring at the long-term site.	1.000	180000.000	YR	180,000.00	0.00	180,000.00
	Other-USGS Biologist	1.000	35000.000	YR	0.00	35,000.00	35,000.00
	Other-USGS Biological Technician	1.000	25000.000	YR	0.00	25,000.00	25,000.00
	Other-USGS Statistician Notes : The USGS statistician will contribute 3 days (36 hours) of time to analyze data from the study plot in 2011.	36.000	72.400	HRS	0.00	2,606.00	2,606.00
	Other-Volunteers from the DT Preserve Co Notes : Note: This is a very conservative estimate.	19.200	200.000	HRS	0.00	3,840.00	3,840.00
	Total for Contracts				180,000.00	66,446.00	246,446.00
3	**Materials / Supplies**						
4	**Equipment Use Expenses**						
	Other-USGS 4WD SUV	6.000	704.000	MOS	0.00	4,224.00	4,224.00
5	**Equipment Purchases**						
6	**Others**						
7	**Indirect Costs**						
	Indirect Costs-BLM Contract Administrati	180000.000	0.100	EA	0.00	18,000.00	18,000.00

	Line Item	Qty	Rate	UOM	Grant Request	Match	Total
Total Program Expenses					180,000.00	88,670.00	268,670.00
TOTAL DIRECT EXPENSES					180,000.00	88,670.00	268,670.00
TOTAL EXPENDITURES					**180,000.00**	**88,670.00**	**268,670.00**

	Line Item	Grant Request	Match	Total	Narrative
DIRECT EXPENSES					
Program Expenses					
1	Staff	0.00	0.00	0.00	
2	Contracts	180,000.00	66,446.00	246,446.00	This grant application requests funding for a USGS Desert Tortoise field monitoring team to conduct intensive monitoring and data collection of Desert Tortoises at the interface of the SE edge of the Desert Tortoise Natural Area and the surrounding OHV designated route area. The USGS contributes the services of a biologist, a specially trained USGS biological technician, and a USGS statistician (to analyze demographic data) and for equipment and materials used by the USGS staff to conduct detailed Desert Tortoise monitoring . For the SE portion of the fence around the Desert Tortoise Natural Area, volunteers from the Desert Tortoise Preserve Committee contribute at least 200 hours annually to repairing and rebuilding the boundary fence around the Natural Area after unauthorized OHV intrusions. The number of hours is a very conservative estimate of the contribution of time by volunteers to maintaining the project site.
3	Materials / Supplies	0.00	0.00	0.00	
4	Equipment Use Expenses	0.00	4,224.00	4,224.00	The US Geological Survey contributes the use of two vehicles for three months each at a cost (maintenance, fuel) of $704.00 per month.

5	Equipment Purchases	0.00	0.00	0.00	
6	Others	0.00	0.00	0.00	
7	Indirect Costs	0.00	18,000.00	18,000.00	
Total Program Expenses		180,000.00	88,670.00	268,670.00	
TOTAL DIRECT EXPENSES		180,000.00	88,670.00	268,670.00	
TOTAL EXPENDITURES		**180,000.00**	**88,670.00**	**268,670.00**	

Environmental Review Data Sheet (ERDS)

FOR OFFICE USE ONLY: Version # _____ APP # 700607

ITEM 1 and ITEM 2

ITEM 1

a. ITEM 1 - Has a CEQA Notice of Determination (NOD) been filed for the Project? (Please select Yes or No) ○ Yes ◉ No

ITEM 2

b. Does the proposed Project include a request for funding for CEQA and/or NEPA document preparation prior to implementing the remaining Project Deliverables (i.e., is it a two-phased Project pursuant to Section 4970.06.1(b)) (Please select Yes or No) ○ Yes ◉ No

ITEM 3 - Project under CEQA Guidelines Section 15378

c. ITEM 3 - Are the proposed activities a “Project” under CEQA Guidelines Section 15378? (Please select Yes or No) ○ Yes ◉ No

d. The Application is requesting funds solely for personnel and support to enforce OHV laws and ensure public safety. These activities would not cause any physical impacts on the environment and are thus not a “Project” under CEQA. (Please select Yes or No) ○ Yes ◉ No

e. Other. Explain why proposed activities would not cause any physical impacts on the environment and are thus not a “Project” under CEQA. DO NOT complete ITEMS 4 – 10

The grant application covers activities that do not alter the natural environment of the Mojave Desert in any way. Desert Tortoise monitoring on survey tracts does not disturb natural and cultural resources in the course of following the protocol permitted by the US Fish and Wildlife Service and the California Department of Fish and Game. Only field staff with permits to conduct monitoring from these two agencies have any contact with Desert Tortoises, and state-of-the-art sanitary measures are used to protect Desert Tortoises' health and safety. No destructive sampling of any kind takes place during monitoring.

ITEM 4 - Impact of this Project on Wetlands

ITEM 5 - Cumulative Impacts of this Project

ITEM 6 - Soil Impacts

ITEM 7 - Damage to Scenic Resources

ITEM 8 - Hazardous Materials

Is the proposed Project Area located on a site included on any list compiled pursuant to Section 65962.5 of the California Government Code (hazardous materials)? (Please select Yes or No) ○ Yes ○ No

If YES, describe the location of the hazard relative to the Project site, the level of hazard and the measures to be taken to minimize or avoid the hazards.

ITEM 9 - Potential for Adverse Impacts to Historical or Cultural Resources

Would the proposed Project have potential for any substantial adverse impacts to historical or cultural resources? (Please select Yes or No) ○ Yes ○ No

Discuss the potential for the proposed Project to have any substantial adverse impacts to historical or cultural resources.

ITEM 10 - Indirect Significant Impacts

CEQA/NEPA Attachment

Attachments: Desert Tortoise Monitoring CX 05 03 10

Evaluation Criteria

FOR OFFICE USE ONLY: Version # _____ APP # 700607

1. Project Cost Estimate - Q 1. (Auto populates from Cost Estimate)

1. As calculated on the Project Cost Estimate, the percentage of the cost of the Project covered by the Applicant is 3

(Note: This field will auto-populate once the Cost Estimate and Evaluation Criteria are Validated.) (Please select one from list)

- ○ 76% or more (10 points)
- ○ 51% - 75% (5 points)
- ◉ 26% - 50% (3 points)
- ○ 25% (Match minimum) (No points)

2. Failure to Complete - Q 2.

2. Failure to complete the Project would result in: 2

(Check all that apply) : Maximum of 8 points (Please select applicable values)

- ☐ Loss of OHV Opportunity (6 points)
- ☐ Negative impact to cultural sites (2 points)
- ☑ Damage to special-status species or other sensitive habitat (2 points)
- ☐ Potential trespass (2 points)
- ☐ Additional damage to Facilities (1 point)

Explain each statement that was checked

The BLM has conducted long-term monitoring of Desert Tortoises at selected plots at and adjacent to OHV recreation sites since 1978. Information on the numbers of live and recently dead tortoises on these plots, their productivity, tortoise health and movements, has been a major contribution to the rangewide understanding of the status of this threatened species. The U.S. Geological Survey, Western Ecological Research Division, monitors the study plots. Occurrences of Mohave Ground Squirrel, a State of California listed species, are also recorded.

Unauthorized vehicle use is occurring in closed areas as well as where travel is confined to designated routes. The US Fish and Wildlife Service requires the BLM to document locations of OHV impacts on tortoises and their habitats. In response to monitoring information, the BLM can then implement appropriate measures to reduce unauthorized use (signing, educational efforts,law enforcement) and in so doing avoid new closures.

3. Sustain OHV Opportunity - Q 3.

3. The Project would sustain OHV Opportunity by 4

(Check all that apply) (Please select applicable values)

- ☐ Maintaining trail or road tread (5 points)
- ☐ Installing or repairing erosion control features (3 points)
- ☑ Providing traffic control and/or educational signage (3 points)
- ☑ Maintaining multi use (ATV, Dirt Bikes, 4x4, etc) (1 point)
- ☐ Providing varied levels of riding difficulty (1 point)

Explain each statement that was checked

Desert Tortoise monitoring will provide critical information essential for determining where OHV traffic signs would be most effectively placed, how and if re-routing vehicle traffic and use would reduce unauthorized vehicle use and impacts to Desert Tortoise, and educating the public. Without this information, BLM efforts to achieve compliance with requirements for the Desert Tortoise Recovery Strategy are likely to be less effective. If the BLM cannot demonstrate progress toward implementing the Strategy, OHV riding opportunities may be at risk if regulatory agencies determine that the BLM must close more areas to OHVs to further protect the Desert Tortoise.

Monitoring information will benefit the general and OHV-oriented publics by showing that responsible OHV use can be sustained on designated routes and is not necessarily detrimental to Desert Tortoises.

4. Public Input - Q 4.

4. The Project was developed with public input employing the following 1

(Check all that apply) : Maximum of 2 points (Please select applicable values)

- ☐ Publicly noticed meeting(s) with the general public to discuss Project (1 point)
- ☑ Conference call(s) with interested parties (1 point)
- ☐ Meeting(s) with stakeholders (1 point)

Explain each statement that was checked

The Desert Tortoise Preserve Committee, the USGS Geological Survey, and the BLM California Desert District Wildlife Biologist discussed options concerning the monitoring site of greatest concern to monitor in 2011. From information from the Desert Tortoise monitoring partners, the BLM Biologist at the California Desert District determined this site was most important.

5. Utilization of Partnerships - Q 5.

5. The Project will utilize partnerships to successfully accomplish the Project. The number of partner organizations that will participate in the Project are 4

(Check the one most appropriate) (Please select one from list)

- ◉ 4 or more (4 points)
- ○ 2 to 3 (2 points)
- ○ 1 (1 point)
- ○ None (No points)

List partner organization(s):

The US Geological Survey
The Desert Tortoise Preserve Committee
California Department of Fish and Game
The Desert Tortoise Council
The US Fish and Wildlife Service, Ventura Field Office
The Desert Managers Group

6. Impact to Natural and Cultural Resources - Q 6.

6. The Project will avoid and/or minimize impact to natural and cultural resources by 2

(Check all that apply) : Maximum of 7 points (Please select applicable values)

- ☑ Maintaining physical barriers to control OHV use (1 point)
- ☐ Protecting water quality (1 point)
- ☐ Providing bridges instead of wet crossings where appropriate (1 point)
- ☑ Protecting special-status species (1 point)
- ☐ Re-routing trails to divert away from riparian/wetlands areas (1 point)
- ☐ Providing sanitary facilities (1 point)
- ☐ Protecting cultural site(s) (1 point)
- ☐ Site design precludes the need for the above measures (7 points)

Explain each statement that was checked

OHV use is occurring in the Desert Tortoise Natural Area where OHV travel not authorized. The staff of the BLM Ridgecrest Field Office and volunteers from the Desert Tortoise Preserve Committee spend hundreds of hours annually to repair fences around the Natural Area, patrol the boundary, and pick up trash at the interface with the designated OHV route network area in the Rand Mountain / Fremont Valley Management Area. The BLM is required to document locations of vehicle disturbances in Desert Tortoise critical habitat and the effects, if any, on tortoises and their habitats. With information from this monitoring project, the BLM can implement appropriate measures, (e.g., additional, signing, educational efforts, and law enforcement efforts) to reduce unauthorized use that impacts or could impact the recovery of Desert Tortoise populations in the area.

7. Recycled Materials - Q 7.

7. The Project incorporates recycled materials by utilizing 2

(Check all that apply) (Please select applicable values)

- ☐ Barrier materials which include recycled content or materials obtained onsite (1 point)
- ☑ Signs, sign posts or education kiosks which use products with recycled content (1 point)
- ☐ Erosion control features which use materials with recycled content (1 point)
- ☐ Paper used for trail maps which includes recycled content (1 point)
- ☑ Other products with recycled content (Specify) (1 point) [all data sheets have recycled content]

8. Sustainable Technologies - Q 8.

8. The Project makes substantial use of sustainable technologies such as 0

- Alternative fuel vehicles and equipment
- Renewable energy sources (e.g., solar, wind)
- Low volatile organic compound emission materials (e.g., paint, sealants, carpet)
- Low flow plumbing fixtures
- Water efficient landscaping

(Check the one most appropriate) (Please select one from list)

- ◉ No (No points)
- ○ Yes (4 points)

Explain 'Yes' response

9. Motorized Access - Q 9.

9. The Project improves and/or maintains facilities that provide motorized access to the following non-motorized recreation opportunities 6

(Check all that apply) Scoring: 2 points each, up to a maximum of 6 points (Please select applicable values)

- ☐ Camping
- ☑ Birding
- ☑ Hiking
- ☐ Equestrian trails
- ☐ Fishing
- ☐ Rock Climbing
- ☑ Other (Specify) [Reptile Watching, Wildflower Viewing]